

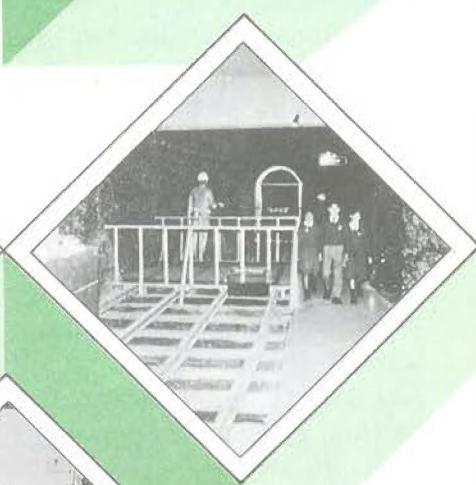
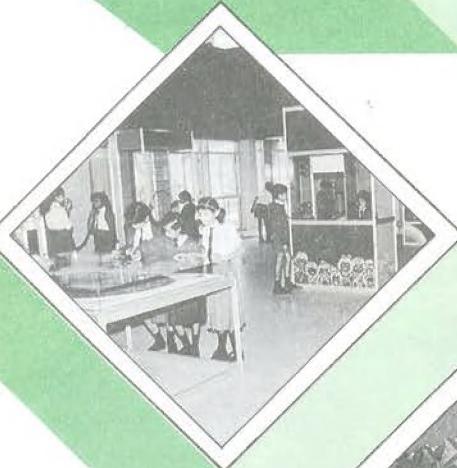
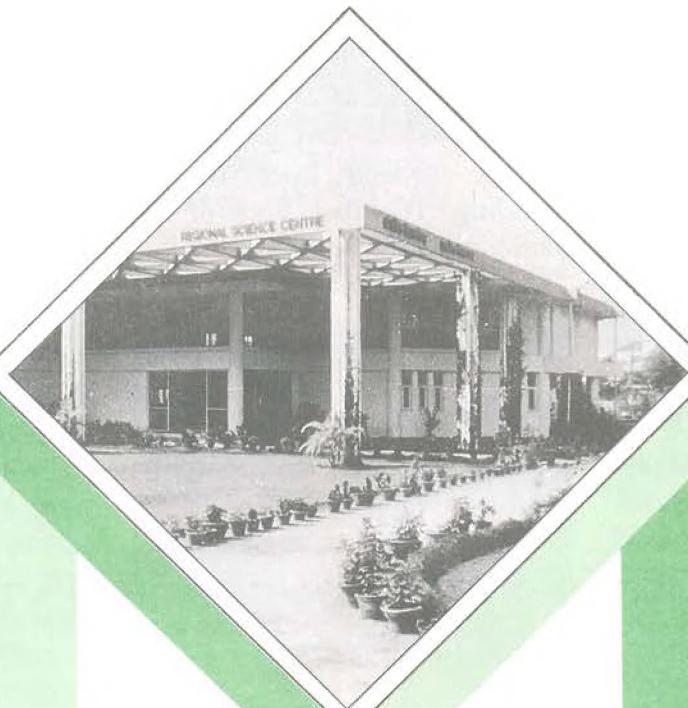
Capsule 33

APR-JUN 1994

INAUGURATION OF RSC GUWAHATI

Shri Hiteswar Saikia, Chief Minister of Assam, dedicated the Regional Science Centre at Khanapara, Guwahati to the people of the North-East on Mar 15 in a simple function. Kum. Selja, Deputy Minister for Education & Culture, Govt of India, and

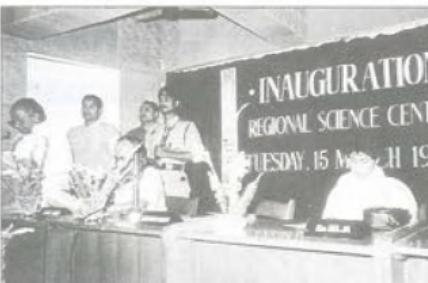
Goutam Bora, Minister of State for Secondary Education, Govt of Assam graced the occasion by their presence. The Centre is the first of its kind in the North-Eastern India and the 6th in the chain of Regional Science Centres under National Council of Science Museums.



INAUGURATION

Built at an expenditure of about Rs.2 crores, the project was jointly financed by the North Eastern Council, Govt of India and the State Govt of Assam. The land for the Centre was donated by the Assam Science Society.

A four acre sprawling Science Park full with hands-on exhibits explaining principles of mechanics, sound, motion and a large Life Science Corner greets a visitor on entry to the Centre. A two storey building at the rear end of the Park, houses, in addition to several exhibition halls, an air-conditioned auditorium and a reference Library-cum-Conference room. Training hall, temporary Exhibition hall and a Cafeteria have been set up



in the ground floor of the building. The first floor of the building is devoted to exhibits. A Childrens' Corner is the first thing which a visitor will find on this floor. Thereafter, exhibitions on Life on Earth, Earth Sciences, River Valley System, Forest and Environment, Assam Tea, Agriculture, Mock Coal Mine, Petroleum and Fun Science are

arranged. Also there is a multimedia projection on 'Are we alone in the Universe?' The inflatable dome planetarium, Taramandal, is another attraction of the Centre. A mobile science exhibition unit complete with a set of exhibits on Energy is also attached to the Centre. RSC Guwahati is also instrumental in setting up a chain of 28 School Science Centres, spread all over the State. The Centre has also started organising various activities for the students and others viz. science seminar, computer fair, science quiz contest, community science programmes, popular science lecture, science demonstration lecture etc.

INDO-CHINESE WORKSHOP ON DEVELOPMENT OF LOW COST EDUCATIONAL KITS/AIDS

An Indo-Chinese workshop on 'Development of Low Cost Educational Kits/Aids' was held at the NCSM, Calcutta during Jan 18-31.

The 4 member Chinese team was headed by Zhang Zhishan, Professor, Beijing Normal University and Adviser, China Science and Technology Museum, and top level professionals engaged in science communication in that country. Eleven science museum professionals drawn from different science centres under NCSM participated from the Indian side.

The workshop was aimed at generation of ideas for new kits/aids through interaction among the participants. To set the ball rolling, the hosts

demonstrated a number of educational kits/aids developed in NCSM. The Chinese side reciprocated with a slide show of the exhibits/kits/teaching aids developed in China.

During the workshop, participants presented their ideas on new kits which was followed by interaction among participants to critically

analyse the conceptual and design aspects of the proposed kits/teaching aids. Ideas on a wide range of subjects like Physics, Chemistry, Life Sciences, Mathematics were put forward, debated and discussed. After a week-long brainstorming session laced with intense interaction-arguments and counter arguments, criticisms and suggestions ~ 40 new kit-ideas were short listed and planned in detail. The fabrication of these kits/teaching aids by both the Chinese and the Indian sides shall be taken up in their respective countries.

Science communicators from both the countries gained immensely through mutual interaction during the workshop.



SCIENCE CENTRE NEWS



The Exhibition on "Two Doyens" at BITM

On Jan 1, Birla Industrial & Technological Museum, Calcutta was responsible for presenting the exhibition entitled "Two Doyens" based on the life and works of Satyendra Nath Bose and Meghnad Saha.

Visvesvaraya Industrial & Technological Museum, Bangalore held an exhibition on the 'life and works of M N Saha, S N Bose and P C Mahalanabis' on Jan 12. The exhibition was inaugurated by Dr A K Ray Chaudhuri, Chairman, Cryogenics Division, I.I.Sc., Bangalore.

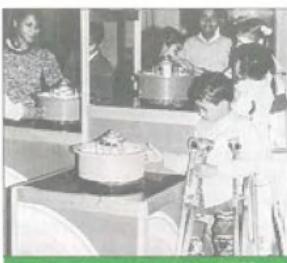
National Science Centre, Pragati Maidan, New Delhi celebrated its second anniversary between Jan 3-9. Inaugurated by Dr Madhu Pant, Director, Bal Bhavan, the programme included competitions on extempore speech, computer software development, photography, science dramas on anti-superstition themes etc. There



Anti-superstitions programme at NSCD

were also several popular lectures. To popularize NSCD among the various ethnic groups in Delhi, Jan 8 was observed as Karnataka Day through the hosting of a variety of scientific and cultural programmes. On Jan 29, a popular lecture on 'Traditional glass making in Denmark and India' was delivered by Dr Jan Kock, Chairman, International Committee on Glass Museums, ICOM.

Between Feb 21-26, NSCD observed science activity week with various competitions and



Handicapped students visiting NSCD on the occasion of their 2nd anniversary

special visits, the highlight of the week being a special visit arranged on Feb 24 that enabled handicapped students to closely study the galleries at NSCD.

Regional Science Centre, Tirupati organized district level science quiz on Mar 21; inaugurated by C Sarkar, Commissioner, Tirupati Municipal Council.

Regional Science Centre, Nagpur extended the prog. of National Science Day (observed on Feb 28) to March 7, thereby accomodating its second anniversary celebration. Painting and quiz contests, sky observation and taramandal shows, were the main highlights



Workshop on Aeromodelling at DSC, Tirunelveli

District Science Centre, Gulbarga observed tenth anniversary week and university level science seminar between Jan 6-12. On Jan 8, a mathematical olympiad was organised for high school and junior college students.

District Science Centre, Tirunelveli was very busy observing several programmes through January and February: Road Safety Week (Jan 3-9), Teaching Community Week (Feb 1-8), Community Week (Feb 8-14), Students' Week (Feb 15-21), Anniversary Week (Feb 22-28).

Between Jan 8-16, Bardhaman Science Centre, organised special Hobby Camp on the occasion of inauguration of this Centre. Three camps were conducted on Physics, Chemistry and Electronics comprising 53 students from seven schools. Computer Awareness Programme was held from Jan 8-16. 17 students participated in the programme.

From Jan 22-24, Birth Centenary Celebration of Prof P C Mahalanabis, Prof S N Bose and Prof Meghnad Saha was observed. Dr J Sarkhel, Burdwan University, Shri A Konar, Asst Secretary of Bigyan Manch and Prof Srirajan Banerjee, Burdwan University delivered talks 'about life and works of the three scientists. Special film shows were also arranged after the seminars.

NATIONAL SCIENCE DAY

The National Science Day was observed in the **Birla Industrial & Technological Museum, Calcutta** on Mar 1 with programmes open to the students, general public and the teachers.

A questionnaire based on Quiz on Museum Exhibits including scientific principle were distributed among the students of classes V to VIII and IX to XI in two groups. They went round the galleries of the Museum and deposited the questionnaire after 2^{1/2} hours. The result was announced in the evening and the prizes will be awarded to the winners on the Museum Anniversary Day.

Debate Competition was held for students of classes VIII to X on the topic 'Population is an asset for Nation's Development'. 31 students from different schools participated.

The item on 'Identification of the source of sound' was specially organised to involve large number of primary school students (upto class V). They had to identify the direction and source of a sound kept at a distance from them. The participants were blind folded and they located the sound source with great fun.

A 4-day long Science Film Festival was organised with films on Ecology & Environment, Oceanography, Botanic Man, Space etc.

Low cost science hands-on experiments were prepared by the students. They prepared some low cost gadgets and performed experiments with them. The experiments were - 'Do it yourself Periodic Table', 'Height-O-Metre', 'Pocket Sun Clock' and 'Find out the Age of a Tree'. About 65

students from different schools joined in this programme.

A 1-day Computer Awareness Programme for teachers to expose them to computers was arranged on Mar 2. 28 teachers from different Institutions attended the programme.

A popular lecture on 'Science & Civilization' was held on Mar 1. Dr Ramatosh Sarkar, Curator, Birla Planetarium delivered the lecture on the same day.

Astronomy Awareness Programme was held which included sky observation through telescope, slide demonstration on solar system/ Universe and Astronomy workshop where students prepared some low cost projects on astronomy and made observation with the instruments they fabricated.

Visvesvaraya Industrial & Technological Museum, Bangalore observed National Science Day on Feb 28 with a state level College Science Seminar on the topic 'Population Explosion - problems and remedies'.

Prof Basu Ghosh, Indian Inst of Management, Bangalore and Dr P Hanumantha Rayappa, Professor and Head, Population Research Centre, Inst for Social and Economic Change, Bangalore, spoke on the occasion.

Nehru Science Centre, Bombay observed the Day with a popular lecture on the topic 'Frontiers of Space Science' by Prof S.A. Stephens, Infrared Astronomy Group, TIFR, Bombay and Chairman of Bombay Association for Science Education.

Regional Science Centre, Lucknow collaborated with Council of Science and Technology, U.P. to observe the Day with

various programmes like model and poster competition, solar cooking competition, science experiment and explanation competition etc. During the four days of the science festival, held between Feb 25-28, there were puppet shows, magic shows, 'nukkad natak' and special demonstrations of low cost science toy-making.

Raman Science Centre, Nagpur observed the Day by hosting three popular lectures catering to a wide ranging interest - the universe, green house effect and archaeological remains in Vidarbha. And there were the usual programmes like painting competition, quiz etc.



Painting competition as a part of science week celebration at RSC Nagpur

Regional Science Centre, Bhopal did not lag far behind in organising programmes on Feb 28, even though they are comparatively new. Science march, sit-and-draw, quest, science vs miracle, planetarium shows, etc were organised and well attended.

Regional Science Centre, Tirupati observed National Science Day with programmes that would enable both young and old to participate. Science Quest, Science March, Science Quiz were mostly open house programmes.

Srikrishna Science Centre, Patna observed the Day with

NATIONAL SCIENCE DAY

a multi-pronged function that included among other things, on-the-spot-cartoon competition on 'the future of planet earth', match box science kit competition, popular science lectures. Prof S.N. Ahsan, Pro-V.C., Patna University was the Chief Guest.

District Science Centre, Tirunelveli went hi-tech on National Science Day with seminar on computers for college students, popular lecture on the importance and need of geomagnetism, etc. Besides, there were usual programmes like science march etc.



Science March on National Science Day organised by DSC Tirunelveli

District Science Centre, Dharampur not only observed the Day through regular programmes like sit-and-draw, elocution competitions, etc but also organised programmes that

would serve the community. There were guidance sessions for unemployed youths and housewives, vocational training and demonstration programmes for unemployed tribal housewives, popular lectures on health education and nutrition etc.

District Science Centre, Gulbarga observed the Day through painting competitions, quiz, popular science lectures on medical ethics, jaundice, life and works of Sir C.V.Raman. An exhibition was also hosted on the life and works of Sir C.V.Raman.

MISCELLANEOUS PROGRAMMES

On Jan 19, a seminar was held at the Birla Planetarium, Calcutta. The subject matter was 'Active Galaxies'. The principal speaker was Prof Ajit Kembhavi of Inter-University Centre for Astronomy and Astrophysics, Pune.

With transparencies, Prof Kembhavi first traced the history of the concept of galaxies: how it all began, less than a hundred years ago, with giant telescopes being constructed one by one, how it gradually came to focus during the second and third decades of the present century, the "grand debate" between Shapley and Curtis and so on and so forth. The role of cepheid variables came in, than the unquestionable fact that what we now call "our Galaxy" is not the only galaxy in the Universe - in fact, the galaxies are immumerable. Lastly, he dwelt upon the evolution of galaxies.

Indian Museum, Calcutta on Feb 2 & 3, organised 6th Dr Nathaniel Wallich Memorial Lectures where Dr (Mrs) Saryu V Doshi, Editor, Marg spoke on 'Early Indian Miniatures' and 'Jaina Art'.

On Jan 5, Birla Institute of Astronomy and Planetarium Sciences, a unit of the Birla Planetarium organised a lecture on 'Interferometric studies : Radio and Optical' by Prof R Hanbury Brown, renowned astronomer and former President, International Astronomical Union.

The Saha Institute of Nuclear Physics, Calcutta celebrated its foundation day on Jan 11 through two lectures on 'Three dimensional structure of an inhibitor protein' by Prof Jibon Kumar Duttagupta and 'Inner Shell Ionisation with low energy heavy ions' by Prof Dipen Bhattacharya.

National Museum, New Delhi organised the 1st Sivaramamurti Memorial Lecture on Mar 31 where Dr N R Banerjee, former Director, National Museum delivered the Memorial Lecture.



Prof Ajit Kembhavi

INTERNATIONAL NEWS

'India - A Glimpse of Science' Exhibition in China

Commemorating India's contribution to the world of science and technology is the NCSM designed and developed exhibition entitled "India : A Glimpse of Science". This 1000 sq. m. exhibition will be on display at the Festival of India in China between June 29 and July 24, 1994 at the Shanghai Exhibition Centre, China. The five major components of the exhibition are: Our Heritage in Science and Technology, Modern Science, Industry for the People, Fun Science and Live Demonstrations of Crafts. The exhibits have labels in Chinese and bilingual brochures and posters, give an in-depth idea of the exhibition.

Indian heritage in science and technology has a long history of 4500 years. Extant manuscripts show that in mathematics, ancient Indians were a force to reckon with. When the western

civilization was still in its cradle, Indian astronomers had made giant leaps in astronomy. Indian men of medicine utilized the wealth of indigenous herbs to create potent antidotes that revolutionized the concept of medicine. The medical texts of Sushruta and Charaka, the renowned physicians of yore, bear testimony to the expertise of ancient Indians in surgery. An advanced society prompts the advancement of the social sciences. Town planning, architecture and metallurgy flourished in ancient India has been

的制造,此洞悉,为人民
大获裨益丰富多彩的
各种消费品——在远方加
的展览中,我们清楚地印度
的国产制造业正在人民生
活中扮演着一个越来越
重要的角色。



the sound basis for future development and assimilation of new techniques and processes. The section has 40 exhibits.

India has now developed a large infrastructure for research and development in various areas of science and technology reflected through 25 exhibits on modern science highlights.

From the early cottage industries, we have come a long way. A network of industries produce, among other things, various types of consumer

durable goods. This section focusses on some of the consumer durables manufactured in India and brings to light the important role played by the modern industries in India.

"Fun Science" displays hands-on participatory exhibits which instruct through interaction. The NCSM has developed a set of exhibits on various topics of physical sciences for the purpose of popularising science in the country. Thirty exhibits are on display in this section.

The Live Demonstrations that accompany the exhibition take the visitors to the wonderful world of Indian handicrafts with exhibits on exquisite carvings on marble and wood, inlays, fine work of silver filigree, figures carved out of milk-white reed called "Solapith". Master artisans from different corners of the country will display their handiwork through these demonstrations.



SCIENCE FAIR

Begun with the objective of popularising science among students, science fairs have become a regular schedule in the annual school calendar. Students wait eagerly to demonstrate their original works and thinking. The end of one year's programme finds students immediately beginning preparations for the next year.

Eastern India Science Fair

The Eastern Indian Science Fair was held in BITM from Feb 4-9. This year 9 states viz. Bihar, Orissa, Meghalaya, Manipur, Tripura, Nagaland, Arunachal



Eastern India Science Fair

Pradesh, Sikkim and West Bengal took part. The theme for this year's Fair was 'Science and Conservation of National Resources'. The Fair was inaugurated by Kanti Biswas, Minister for Information & Cultural Affairs, West Bengal while Dr B L S Prakasa Rao, Director, Indian Statistical Institute was the President of the inaugural session.

Five Work Experience camps were conducted during the Science Fair. The camps were Solapith, Origami, Ceramics, Computer and Electronics. Total number of participants in the camps were 49.

Sikkim won top honours in the quiz, followed by Tripura.

J C Bose trophy and NCSM scholarship of Rs.200 per month for 24 months were awarded to

Ratan Kundu of Nasra High School, Ranaghat, Nadia, West Bengal for his project 'Low Cost Solar Application on Rural Life'.

P C Roy trophy and NCSM scholarship of Rs.50 per month for 24 months were awarded to Ribha Singh of Vidyapati High School, Darbhanga, Bihar for her model 'Advanced Multiplication Model for Teaching for Blind'.

Western India Science Fair

Held between Jan 25-29, the Western India Science Fair saw active participation from states like Goa, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan and UTs of Daman & Diu and Dadra & Nagar Haveli. On the inaugural day, Dr V S Venkataradhan, Director, Nehru Planetarium was the chief guest while Dr B N Singh, Director, Indian Institute of Geomagnetism graced the chair of the chief guest on the day of valediction.

Southern India Science Fair

Southern India Science Fair was organised by VITM, Bangalore in collaboration with Dept of Public Instruction, Govt of Karnataka, at Mysore Dasara Exhibition Grounds, Mysore from Feb 7-11. In this Fair, selected schools from Karnataka, Kerala, Tamil Nadu, Andhra Pradesh and Pondicherry participated.

The Fair was inaugurated on Feb 7 by Dr H A B Papia, ex-Director, CFTRI, Mysore. Minister for Kannada and Culture, Govt of Karnataka, H Viswanath presided over the function. Dr Sudhakar Rao, IAS, Commissioner for Public Instruction, Govt of Karnataka delivered the keynote address.

In total 171 teachers and 323 students from 150 schools from

Sothen states presented 352 exhibits in this Fair. The Fair was open to public as well as the students on all the five days. About 110,000 students and general public visited the Fair in five days. Cultural programmes were arranged for the participants in the evenings.

The valedictory function was held on Feb 11. Minister for Education, Govt of Karnataka, Nagamma Keshavamutty presided over the function.

Prof J R Lakshmana Rao, Ex-President and Chief Editor, KRVP and Bala Vignana



Southern India Science Fair

delivered the valedictory address. V Srinivasa Prasad, MP, distributed the prizes and Dr Seshadri, Principal, Regional College of Education, Mysore, released the souvenir brought out in connection with the Fair. In all about 117 prizes including teacher awards, industrial special prizes, scholarships and trophies were distributed to the deserving participants at the Fair.

District Science Fair

A district level Science Exhibition was organised by RSC, Bhubaneswar in collaboration with Khurda Circle (Inspector of Schools) during Jan 17-19. The theme of the exhibition was 'Science and Conservation of National Resources'. The exhibition was inaugurated by Prof H S Ray,

SCIENCE FAIR



Science Fair at Bhubaneswar

Director, Regional Research Laboratory, Bhubaneswar.

107 delegates participated in the exhibition and 60 projects developed by them were displayed. Majority of them were school students from Khurda and nearby districts.

The exhibition was closed with a valedictory address and prize distribution by the Minister for School and Mass Education, Orissa, P C Ghadei, Dr K K Das, Director, TE&SCERT presided over the valedictory function.

Bardhaman Science Centre organised District Science Fair in collaboration with District Youth Office and Paschim Banga Bigyan Manch between Jan 22-25. The inaugural ceremony was a colourful one. Prior to the inauguration, a 'Science March' was conducted from Udaychand Library to Bardhaman Science Centre. About 1800 students from 16 schools, professionals and voluntary organisations took

part in the procession holding colourful posters for popularising science.

120 participants from 28 schools and 8 science clubs participated and demonstrated their 120 models for four days. Dudipta Bose from Memari V M Institution obtained the 1st prize for his model 'Blessings of Science in Human Life' and thereby Memary V M Institution obtained the BITM Challenge Trophy, 1994 for this district.

Between Feb 4-6, DSC Tirunelveli organised the district science fair at Sri Jeyendra Swamigal Silver Jubilee School, Tirunelveli. Dr Pradeep Vyas, IAS, Addl Collector (Dev), DRDA, Tirunelveli was the chief guest for the inaugural function while Neelakantan, Chief Educational Officer, Tirunelveli was the chief guest for the valedictory session.

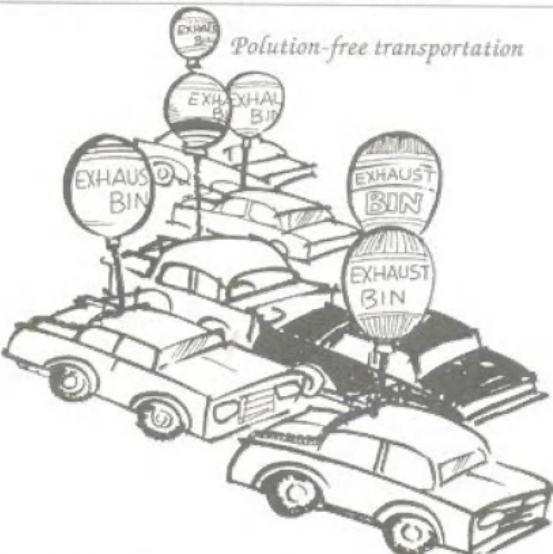


Science Fair at Purulia

Between Jan 28-30, Purulia Science Centre organised the Fair. 30 schools participated along with science clubs and other institutions. There were lots of prizes to be won and none went abegging. Manbhumi Victoria Institution won the BITM District Challenge Trophy.



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Science Fair at Bardhaman